MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2019/2020

BBF2134 – FINANCIAL MARKETS AND INSTITUTIONS

(All Sections/Groups)

25 OCTOBER 2019
9.00 a.m – 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 6 pages with 2 sections.
2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

SECTION A: Case Study (50 Marks)

Bond Market Seen Holding Up Despite Negative News

The Malaysian bond market will likely hold up for now with the benchmark 10-year Malaysian Government Securities (MGS) projected to hover between 3.75 and 4.00 by year-end as investors adopt a wait-and-see stance in the wake of the recent negative news flows. Economists and bond analysts concurred that the local debt market is still resilient underpinned by the country's healthy macro fundamentals. Having said that, many agree they do not foresee the 10-year MGS yield at this juncture or in the near term surpassing its highest level attained at 4.46% after the US election in November 2016. Ambank Group's base projection for the 10-year MGS yield is for 2019 is between 3.75% and 3.80%. Maybank Kim Eng's is maintaining its 10-year MGS yield forecast at 3.90% by end-June and 4.00% year-end. Bond yields and prices have an inverse relationship. Net foreign bond outflows until April stands at RM 2.6bil. As at press time, the 10-year MGS was hovering at 3.89%. The latest negative news hitting Malaysia was the US' move to include Malaysia in its currency manipulator watch list.

In April, FTSE Russell said it would review the nation's government bonds' participation in the World Government Bond Index (WGBI). It placed Malaysia on its fixed-income watch list for six months until September. Maybank Kim Eng head of fixed income research Winson Phoon is maintaining a "neutral" stance on the MGS. He is "positive" on the new initiatives by Bank Negara, but from a bond strategy point of view, the presence of external risk factors and that the curve has already rallied by 20-30bps year-to-date may see MGS strength capped by profit-taking. The risk of exclusion from WGBI was unlikely to threaten macro-stability given the depths of domestic funds, he said. On the central bank's initiatives, Phoon views the widening of accessibility to onshore dynamic hedging by including trust banks and global custodians as being the most important. It eases accessibility for foreign funds that have a preference to execute forex transactions via custodian. "As things progress, we may see announcement from the regulator regarding the number and/or list of trust banks and global custodians registered for the dynamic hedging programme," he said.

AmBank Group chief economist Anthony Dass said despite a challenging 2019 bond market outlook, the country's overall healthy macro fundamentals supported by current account surplus, low inflation, steady growth and healthy reserves would continue to support the bond market. "Liquidity remains ample and we have adequate ammunition to address an issues relating to liquidity in the event it creeps up in the future. "Our policies are pragmatic as it includes flexibility accorded by a floating exchange rate and strong external balance," he noted. Dass said the Malaysian bond market is expected to benefit from the inflow of funds into the emerging market where growth remains attractive with increasing room for monetary easing and fiscal support in some of the economies, especially with growing odds of the US Fed to cut rates in the second half of the year.

Continued ...

The country's debt market was more sensitive to the announcement made by FTSE Russell on April 16 compared to the recent move by the US to include Malaysia on its list of currency manipulators, he said. "With an estimated exposure of around US$8bil of Malaysian bonds in FTSE Russell's, their announcement saw MGS yields rose 15-20bps. "Although our base projection for the 10-year MGS yield is 3.75% -3.80% in 2019, there is room for the 10-year MGS yields to reach 3.7% -3.75% supported by positive news flows. "Still, upside risk to our forecast remains on our cards, projected to reach 3.90%–4.05% levels driven by external noises and/or domestic issues that results in strong capital outflow by investors who in turn would seek for safe haven assets," Dass said.

Bond Pricing Agency Malaysia Sdn Bhd (BPAM) CEO Meor Amri Meor Ayob said foreign funds may decide to adopt a wait-and-see stance. With the Malaysian ringgit at around 4.1900-4.2000 against the US dollar and foreign holdings of MGS at multi-year lows of 37% as of April, it is fair to expect that the cheaper ringgit and relatively higher Malaysian bond yields will entice foreign money to return en masse as the Malaysian economic growth remains healthy and steady on the back of benign inflationary pressures. "The dovish monetary policy adopted by global central banks including Malaysia in face of heightened US-Sino trade tensions will be a boon to the bond market due to flight-to-safety flows. "The resilience of the Malaysian bond market is proven by the benchmark Thomson Reuters BPAM All Bond Index which has always demonstrated a positive drift over the years that transcend good times and bad times," Meor Amri said.

Malaysian Rating Corp Bhd chief economist Nor Zahidi Alias felt that the inclusion of Malaysia in the US watchlist for currency manipulation would not materially affect its attractiveness as an investment destination for bond asset managers. Yields, he said, remain generally attractive; economic growth continues to outpace those of its A-rated peers. FTSE-Russell's decision and the WGBI issue would, to a large extent, determine the trend of capital flows. And this would likely have an impact on the ringgit-US dollar exchange rate, he said. "In the last two episodes of capital outflows, foreign holdings of Malaysian bonds fell by roughly RM28bil (during the Taper Tantrum) and RM63bil (during the Trump rhetoric). Accordingly, the ringgit depreciated by roughly 6%-7% during these two episodes," Zahidi said. High-growth Asian economies will remain attractive. So Malaysia's bond market is unlikely to be materially affected, barring a pronounced global downturn, he said. RAM Ratings head of research Kristina Fong felt the lack of clarity of what the US Treasury report on foreign exchange operations of US trading partners actually may precede to, and may cause some risk aversion. "Foreign investors may further rationalise their bond holdings in the domestic market due to the prevailing risk-off sentiment. "Some investors may also perceive the recent US Treasury announcement as a precursor to a wider net of tariffs on US trade partners with whom are at surplus with the US, which may exacerbate the flight to safety flows," she noted.

(Source: Daljit Dhesi, The Star, 7 July 2019)

Continued ...

QUESTION 1

a. How money market (MM) rates may respond to prevailing conditions of Malaysia's bond market, and should firm's bond asset manager invests in money market securities? Please provide your opinion.

(5 Marks)

b. A 10-year Malaysian Government Security's (MGS) cash flows are coupon payments of RM120,000 over each of the nine years it holds the bonds. The last year's cash flows should also include the forecasted selling price of RM2.6 million. With a discount rate of 4 percent, calculate the market price of the MGS.

(5 Marks)

c. Given the cheaper ringgit and higher Malaysian bond yields together with the external risk factors, provide your suggestion to the Malaysian corporations if they need to borrow from bond market.

(5 Marks)

d. As a bond analyst, calculate the duration of a bond with RM800 par value and a 4 percent coupon rate, three years remaining to maturity and a 4.46 percent yield to maturity.

(5 Marks)

e. Bond yields and prices have an inverse relationship. When the bond price rises from RM1,500 to RM2,000, what would be the changes in bond yield. Assume the bond has a par value of RM1,500 and a coupon interest rate of 3.90 percent.

(5 Marks)

f. An investor has the following options: (i) A 3-year RM1,500 par zero-coupon bond is currently priced at RM928.00. (ii) A 3-year RM3,000 annuity is currently priced at RM1,920. If you want to invest RM20,000 in one of the two bonds, which option is a better to buy?

(5 Marks)

g. With low inflation, steady growth and healthy reserves of Malaysian economy, the stock price for a security is RM74 at 12% growth rate. When the growth rate increases to 13%, the stock price stood at RM114, using the same Gordon growth model. The changes in 1% growth result in a RM38.33 price difference. Explain the price differences relative to the changes in growth.

(5 Marks)

Continued ...

h. Despite the external risk factors, T&T just paid an annual dividend of RM0.28 per share. Its dividend is expected to double for the next five years, after which it will grow at a more modest pace of 1% per year. If the required return is 10%, calculate the current price?

(5 Marks)

i. Suppose that in March 2018, you have a portfolio of stocks valued at RM150 million that moves percentage wise one-for-one with the FBMKLCI Index. Suppose that the March 2019 FBMKLCI Index contracts are currently selling at a price of RM1,650. By selling the contract, you agree to a delivery amount due of RM200 times the FBMKLCI Index on the expiration date at the end of June. How many of these contracts should you sell to hedge the stock market risk of this portfolio over the next year?

(5 Marks)

j. As mentioned in the case, the exchange rate is US$1 = RM4.19. A manufacturing company in Malaysia expects to be paid US$10 million in two months for the sale of equipment in United States. However, the ringgit depreciated by roughly 6-7% during the two months. Discuss the impact of fluctuation of exchange rate on the margin account.

(5 Marks)
(Total: 50 marks)

SECTION B: (50 Marks)

QUESTION 1

a. Jennifer holds a corporate bond of Gamuda Berhad which the maturity value is RM1,000. The bond has a coupon rate of 15 percent and 10 years of remaining maturity in the Malaysian Bond Market. Based on her estimation, she plans to sell the bond in one year and expects the required yield next year of this bond will be the following probability distribution.

Probability	Required Yield (%)
0.2	2.30
0.1	4.55
0.3	4.69
0.2	5.13
0.4	6.78
0.3	7.52

As a broker, Jennifer would like to seek your assistance to:
(Show all your working steps)

i. Calculate the expected price of the bond at the time of sale that she makes.

(8 Marks)

ii. Compute the standard deviation of the bond price.

(5 Marks)

Continued ...

b. On March 23, 2010, President Barack Obama signed into law the Patient Protection and Affordable Care Act, otherwise known as the ACA or "Obamacare." Often marketed as the most important health care reform in the USA since Medicare and Medicaid in the 1960s, the new legislation seeks to reduce the proportion of uninsured Americans by expanding both private and public insurance coverage, reducing the costs of health care for individuals and the government and improving the quality and scope of health benefits. Since its inception, following Obama's 2008 presidential election, many people have expressed serious concerns that the ACA will exacerbate the moral hazard problem that plagues the American health-care system and drives up costs.

Discuss **THREE (3)** approaches to minimise moral hazard in debt contracts.

(12 Marks)

(Total: 25 Marks)

QUESTION 2

a. The following financial statement is for the current year of Hong Leong Bank Berhad. After you review the past data, you notice that 10% of fixed-rate mortgages prepay each year. You also estimate that 10% of checkable deposits and 20% of savings accounts are rate sensitive.

Hong Leong Bank Berhad

Assets	RM	Liabilities	RM
Reserves	1,500,000	Checkable Deposits	15,000,000
Securities		Money Market Deposits	5,500,000
< 1 Year	6,000,000	Savings Accounts	8,000,000
1 to 2 Years	8,000,000	CDs	
> 2 years	12,000,000	Variables-rate	15,000,000
Residential Mortgages		< 1 Year	22,000,000
Variables-rate	7,000,000	1 to 2 Years	5,000,000
Fixed-rate	13,000,000	> 2 years	2,500,000
Commercial Loans		Fed Funds	5,000,000
< 1 Year	1,500,000	Borrowings	
1 to 2 Years	18,500,000	< 1 Year	12,000,000
> 2 years	30,000,000	1 to 2 Years	3,000,000
Buildings, etc.	2,500,000	> 2 years	2,000,000
		Bank Capital	5,000,000
Total	100,000,000	**Total**	100,000,000

Based on the financial statement above, you are required to complete the following: (Show all your working steps)

Continued ...

i. Calculate the current income GAP for Hong Leong Bank Berhad.

(13 Marks)

ii. Compute the bank's current net interest income if rates fall by 0.75%.

(3 Marks)

b. Raddant investigates the lending behaviour of banks in the Italian overnight loan market from 1999 until 2010. The novel feature of this investigation is the analysis the bank specific loan rates and their change over time.
Explain the **THREE (3)** functions of overnight loan market in sustaining the growth of an economy.

(6 Marks)

c. The issue of paying interest on bank reserves has a rich history. In years past, microeconomic efficiency concerns motivated proposals for the Federal Reserve System (the Fed) to pay interest on required reserves.
Distinguish between a bank's reserves and required reserves.

(3 Marks)
(Total: 25 Marks)

End of Paper